



Attorney Docket No.: TRAN-P004 DIV

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent Application

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Inventor(s): Edmund J. Kelly, Robert F. Cmelik and Malcolm J. King

APR 05 2004

Serial No.: 09/699,947

Group Art Unit: 2186

Technology Center 2100

Filed: 10/30/00

Examiner: Thai, Tuan V.

Title: TRANSLATED MEMORY PROTECTION APPARATUS FOR AN ADVANCED MICROPROCESSOR

**Form 1449**

**U.S. Patent Documents**

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
Tn.	A	5,564,018	10/08/96	Flores et al.	395	200.02	11/15/93
	B	5,568,614	10/22/96	Mendelson et al.	395	200.08	07/29/94
	C	5,740,391	04/14/98	Hunt	395	376	03/01/96
	D	5,792,970	08/11/98	Mizobata	84	607	05/30/95
	E	6,079,003	06/20/00	Witt et al.	711	200	11/20/97
	F	6,208,543	03/27/01	Tupari et al.	365	49	05/18/99
	G	6,266,752	07/24/01	Witt et al.	711	200	04/17/00
	H	5,138,708	08/11/92	Vosbury	395	575	08/03/89
✓	I	5,410,658	04/25/95	Sawase et al.	395	375	10/13/92
Tn.	J	4,590,549	05/20/86	Burrage et al.	364	131	05/27/83

**Foreign Patent or Published Foreign Patent Application**

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation Yes	No
Tn.	K	EP0742512A2	11/13/96	EPO	G06F	9/38	X	
Tn.	L	WO96/30829	03/10/96	PCT	G06F	9/455	X	

**Other Documents**

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
Tn.	M	Ebciooglu et al.; "DAISY: DYNAMIC COMPILATION FOR 100% ARCHITECTURAL COMPATIBILITY"; IBM Thomas J. Watson Research Center Yorktown Heights, NY; 02/06/97
Tn.	N	IBM Technical Disclosure Bulletin; "GATHERING STORE INSTRUCTIONS IN A SUPERSCALAR PROCESSOR"; XP 0006382245; Vol. 39, No. 9, Sept. 1996 pgs. 103-105
Examiner		Date Considered 11/09/02

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered.  
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Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
TN	A	5,349,658	09/20/94	O'Rourke et al.	395	700	11/01/91
	B	5,467,473	11/14/95	Kahle et al.	395	800	01/08/93
	C	5,875,340	02/23/99	Quarnstrom et al.	395	733	05/31/96
	D	5,274,815	12/28/93	Trissel et al.	395	700	11/01/91
	E	6,031,992	02/29/00	Cmelik et al.	395	705	07/05/96
	F	4,530,050	07/16/85	Fukunaga et al.	364	200	08/17/82
	G	5,553,255	09/03/96	Jain et al.	395	375	04/27/95
	H	4,896,257	01/23/90	Ikeda et al.	364	200	11/28/88
	I	5,581,722	12/03/96	Welland	395	417	09/26/94
	J	5,613,083	03/18/97	Glew et al.	395	417	09/30/94
	K	5,442,766	08/15/95	Chu et al.	395	414	10/09/92
	L	4,954,942	09/04/90	Masuda et al.	364	200	11/17/88
	M	5,465,337	11/07/95	Kong et al.	395	417	10/05/94
	N	5,526,510	06/11/96	Akkary et al.	395	460	09/30/94
	O	5,142,672	08/25/92	Johnson et al.	395	500	12/15/87
	P	5,561,814	10/01/96	Glew et al.	395	833	12/22/93
	Q	5,930,832	07/27/99	Heaslip et al.	711	207	06/07/96
	R	5,958,061	09/28/99	Kelly et al.	714	1	07/24/96
	S	5,805,490	09/08/98	Machida	364	784.01	07/10/95
	T	5,282,274	01/25/94	Liu	395	400	05/24/90
	U	4,481,573	11/06/84	Fukunaga et al.	364	200	11/13/81
	V	5,361,340	11/01/94	Kelly et al.	395	400	03/09/93
	W	4,825,412	04/25/89	Sager et al.	365	49	04/01/88
	X	4,914,577	04/03/90	Stewart et al.	364	200	07/16/87
	Y	5,577,231	11/19/96	Scalzi et al.	395	500	12/06/94
	Z	5,097,409	03/17/92	Schwartz et al.	395	425	06/18/91
	AA	5,623,628	04/22/97	Brayton et al.	395	468	03/02/94
	BB	4,928,225	05/22/90	McCarthy et al.	364	200	09/02/88
	CC	5,197,144	03/23/93	Edenfield et al.	395	425	02/26/90
	DD	5,247,648	09/21/93	Watkins et al.	395	425	04/30/92
	EE	5,317,720	05/31/94	Stamm et al.	395	425	03/22/93
	FF	5,239,646	08/24/93	Kimura	395	575	07/02/90
	GG	4,598,402	07/01/86	Matsumoto et al.	371	38	11/07/83
	HH	4,458,316	07/03/84	Fry et al.	364	200	10/11/83
	II	5,463,767	10/31/95	Joichi et al.	395	183.13	02/24/93



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Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
TN.	JJ	4,607,331	08/19/86	Goodrich, Jr. et al.	364	200	05/13/83
	KK	4,467,411	08/21/84	Fry et al.	364	200	03/06/81
	LL	3,863,228	01/28/75	Taylor	340	172.5	12/13/73
	MM	5,517,615	05/14/96	Sefidvash et al.	395	182.03	08/15/94
	NN	5,564,111	10/08/96	Glew et al.	395	185.06	09/30/94
	OO	5,566,298	10/15/96	Boggs et al.	395	182.08	03/01/94
	PP	5,574,927	11/12/96	Scantlin	395	800	03/25/94
	QQ	5,721,927	02/24/98	Baraz et al.	395	705	08/07/96
	RR	5,768,567	06/16/98	Klein et al.	395	500	05/14/96
	SS	5,838,948	11/17/98	Bunza	395	500	12/01/95
	TT	5,481,685	01/02/96	Nguyen et al.	395	375	11/21/94
	UU	5,644,742	07/01/97	Shen et al.	395	591	06/07/95
	VV	5,638,525	06/10/97	Hammond et al.	395	385	10/02/95
	WW	5,613,090	03/18/97	Willems	395	500	10/05/93
	XX	5,604,753	02/18/97	Bauer et al.	371	40.1	01/04/94
	YY	5,598,560	01/28/97	Benson	395	707	03/07/91
	ZZ	5,598,546	01/28/97	Blomgren	395	385	08/31/94
	AAA	5,574,922	11/12/96	James	395	561	06/17/94
	BBB	5,546,552	08/13/96	Coon et al.	395	375	05/12/95
	CCC	5,528,755	06/18/96	Beardsley et al.	395	185.01	12/22/92
	DDD	5,564,104	10/08/96	Yamashita et al.	395	182.15	08/25/94
	EEE	5,507,030	04/09/96	Sites	395	800	03/07/91
	FFF	5,247,628	09/21/93	Grohoski	395	375	01/17/90
TN.	GGG	4,992,934	02/12/91	Portanova et al.	364	200	03/30/90

### Foreign Patent or Published Foreign Patent Application

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							Yes	No
TN.	HHH	0651331A1	03.05.95	EUROPE	G06F	12/08	X	

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**Other D cum nts**

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
TN.	III	Halfhill; "EMULATION: RISC'S SECRET WEAPON"; Special Report: The RISC Decision; BYTE April 1994
	JJJ	Andrews et al.; "MIGRATING A CISC COMPUTER FAMILY ONTO RISC VIA OBJECT CODE TRANSLATION"; Tandem Computers, Cupertino, CA 1992 Pgs 213-222; Association of Computing Machinery 1992
	KKK	Cmelik et al.; "SHADE: A FAST INSTRUCTIONSET SIMULATOR FOR EXECUTION PROFILING"; Association for Computing Machinery 1994
	LLL	Bedichek ; "TALISMAN FAST AND ACCURATE MULTICOMPUTER SIMULATION"; Lab for Computer Science Cambridge MA; Association of Computing Machinery 1995
	MMM	Ando et al.; "UNCONSTRAINED SPECULATIVE EXECUTION WITH PREDICATED STATE BUFFERING"; System LSI Laboratory, Japan ; pgs 126-13; Association of Computing Machinery 1995
	NNN	May; "MIMIC: A FAST SYSTEM/370 SIMULATOR; IBM Thomas J. Watson Research Center NY; Association of Computing Machinery 1987
	OOO	Tremblay et al.; "A FAST AND FLEXIBLE PERFORMANCE SIMULATOR FOR MICRO-ARCHITECTURE TRADE-OFF ANALYSIS ON ULTRASPARC-I"; 32nd Design Automation Conference; San Francisco, CA 1995
	PPP	Kumar et al.; "EMULATION VERIFICATION OF THE MOTOROLA 68060"; Motorola Inc.; Austin, TX; 1995 IEEE
	QQQ	Note et al.; "RAPID PROTOTYPING OF DSP SYSTEMS: REQUIREMENTS AND SOLUTIONS"; Philips ITCL Belgium; 1995 IEEE
TN.	RRR	Witchel et al.; "EMBRA FAST AND FLEXIBLE MACHINE SIMULATION"; Sigmetrics ACM 1996; pages 68-79

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